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Ready for Failure? Irrational Beliefs, Perfectionism and Mental Health in Male Soccer Academy Players

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Abstract

Since Junior-to-Senior Transition (JST) is only considered successful when soccer players become professionals, many junior athletes must cope with failure, and their sporting careers and mental health may be at risk. Therefore, the objectives of this study are to (a) identify different career expectancies of male soccer academy players, and (b) describe irrational beliefs, perfectionism and mental health levels associated with different career expectancies, identifying risk factors in the JST. A total of 515 male soccer players between 14 and 19 years old ($M = 16.7$; $SD = 1.6$) who played in Spanish professional youth academies during the 2020–2021 season, answered questionnaires on sports career model, beliefs, perfectionism and mental health (i.e., iPBI, MPS-2 and GHQ-12). The results suggest that the number of juniors who aspire to be professionals (57%) far exceeds the number of players who become professionals (10%; Dugdale in Scandinavian Journal of Medicine & Science in Sports 31:73–84, 2021). Also, results show that this population presents high levels of demandingness ($M = 5.5$), low frustration tolerance ($M = 5.2$), self-organization ($M = 5.2$) and social functioning ($M = 5.5$), and low scores on depreciation ($M = 2.6$) and loss of confidence and self-esteem ($M = 2.4$). In a more detailed way, the results are compared according to expectancies. These academies are usually environments where success and failure are antagonistic concepts, and where perfectionism and irrational beliefs are normalized and integrated among all members of this context. However, the possible maladaptive effects put their mental health at risk. With the aim of rationalizing the concepts of success and failure and protecting their mental health, especially those who will not become professionals, this study proposes a new route based on the REBT philosophy and ARRC technique.

Keywords Irrational beliefs · Perfectionism · Mental health · JST · Talented athletes

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Introduction

Soccer is considered the most popular and mediatized sport in the world (Samuel et al., 2017). In Spain, soccer has the highest number of memberships, a total of 1.075.000 in the 2020–2021 season (*Anuario de estadísticas deportivas*, 2021), followed at great distance by basketball (412.000 licenses). A considerable number of youngsters play in football clubs and only a few will join youth academies to eventually become professional soccer players (Chamorro et al., 2016). The main aim of these academies is the identification and development of young talented athletes from cohorts of youngsters recruited under a promise of early career success (Hill et al., 2008). Nevertheless, looking at the statistics, the majority will never reach professional status, and will drop out from the academies or be replaced with other talented young players, move on to the recreational level, or -more worrying- quit sport (e.g., Chamorro et al., 2019; Torregrossa et al., 2016). Less than 10% of junior soccer players will progress to the professional stage, or in other words, more than 90% of the players will not become professional (Dugdale et al., 2021; Grossmann & Lames, 2015). This frustrating reality and the challenges faced by athletes during this transition may be a source of mental health issues for talented youth soccer players (Donachie & Hill, 2020; Stambulova et al., 2021).

To become professionals, soccer players need to navigate through the Junior-to-Senior Transition (JST). Schlossberg (1981) defined a transition as an "event or non-event that results in a change of assumptions about oneself and the world and thus, requires a corresponding change in one's behavior and relationships" (p. 5). Research has identified the JST as the most critical and difficult moment on their way to the elite level, with many of them acknowledging their failure to cope with it (Stambulova et al., 2009). The main criterion for evaluating an athletic career as successful in soccer is still the entry into the first team (Ford et al., 2020; Grossmann & Lames, 2015). On the contrary, players moving to amateur competition or withdraw from sport, are evaluated as a failure. The climate promoted by soccer environments (e.g., academies, media), in which success is defined only as becoming a professional player, tends to pressure players to achieve this objective rather than promote the development of a healthier process (Hill et al., 2008).

To better understand the athletic career, we need to explore the combination of athletes' life domains (e.g., sport, studies/work) and the career trajectory talented youngsters are developing (Wylleman, 2019). The Career Trajectory Model (CTM; Pallarès et al., 2011; Torregrossa et al., 2021) proposes four career paths in relation to the combination of sport and studies/work: (a) a linear path, in which athletes focus exclusively on sport, (b) a divergent path, where sports and studies/work are seen as separate and conflicting, (c) a convergent path, where sport and studies/work complement each other, and (d) a parallel path, in which sport and studies/work are seen as separate but don't influence each other. According to Torregrossa et al. (2021), the higher the competitive level in sport, the more likely it is to follow a linear path. Chamorro et al. (2016) found that young talented Spanish soccer players who developed their athletic careers in

highly competitive contexts and maintained their dedication to other life domains (e.g., academic, personal), showed a more adaptative psychological profile in terms of autonomous motivation, harmonious passion and perceived satisfaction of the basic psychological needs in comparison with players who focused exclusively on becoming professional players. One of the aims of the current work is to examine if, in addition to the different motivation profiles (Chamorro et al., 2016), there are specific beliefs and perfectionism profiles in junior soccer players associated with the expectations of the athletic career in general, and the JST in particular.

The existent success stories put forward by academies and media might have led talented youth to develop biased judgements and irrational beliefs regarding the possibility of becoming professional soccer players (see Ruscio, 2010; Torregrossa et al., 2021). Beliefs are means of evaluating particular representations of reality in terms of each individual's personal meanings (David et al., 2010), which can be about oneself, others, or the world in general (David et al., 2005). According to Shermer (2011), beliefs are developed after a variety of emotional and psychological experiences in different environments (e.g., cultural background, relationships, education, life experiences). These experiences promote a belief system that greatly influences one's perception of reality and that, once developed, is maintained and reinforced through a cognitive bias that distort perception across the variety of contexts in which that unfolds (Shermer, 2011). Scientific evidence on Rational Emotive Behavior Therapy based interventions (REBT; Ellis, 1957) with athletes indicates that irrational beliefs (i.e., demandingness, awfulizing, low frustration tolerance, self/other depreciation) are related to increased psychological distress, such as anxiety and depression symptoms (Mansell, 2021; Turner et al., 2022a, 2022b) and burnout (Turner & Moore, 2016) and are a risk factor for athletes' performance on both short and long-term goal achievement, in addition to acting as a maladaptive factor to the environment (Turner et al., 2022a, 2022b; Turner, 2016b). On the other hand, rational beliefs (i.e., preferences, anti-awfulizing, frustration tolerance, self/other acceptance) might act as a protective and adaptative factor for these variables (Mansell, 2021). Moreover, the promotion of rational beliefs can foster and maintain a healthy, successful and sustainable athletic career (Jordana et al., 2020), while promoting irrational beliefs in the early stages of the athletic career may affect young athletes' psychological development (e.g., Jordana et al., 2020; Turner, 2016b). Analogous to Wylleman's perspective on athletic careers (2019), REBT defends a humanistic philosophy according to which in sporting context it is important to consider the person from a holistic perspective, and not only as an athlete or solely for his performance.

Implicit in the key role of academies and media, families also influence the development of young talented athletes' athletic careers, in part because they are seen as an immediate source of performance-related expectations (Appleton et al., 2010). Unconditional support from parents is related to a positive impact on the sports experience and psychological development of their children (Knight et al., 2016), while pressurizing behaviors, performance expectations and excessive criticism from families can have a negative impact and increase the possibility of developing personality characteristics such as perfectionism (Hayward et al., 2017).

Perfectionism was identified by Albert Ellis as part of the irrational beliefs related to "the idea that one should be thoroughly competent, adequate, intelligent, and achieving in all possible respects" (Ellis, 1958, p. 41) and "the idea that there is invariable a right, precise, and perfect solution to human problems and that it is catastrophic if this perfect solution is not found" (Ellis, 1962, pages. 86–87). Later, Frost et al. (1990) conceptualized perfectionism as the combination of setting excessively high standards for performance and overly critical evaluations of one's behavior. In order to argue that perfectionism was not inherently problematic, Stoeber and Otto (2006) differentiated two dimensions of perfectionism: perfectionistic strivings and perfectionistic concerns. Following this classification, perfectionistic strivings indicate a self-oriented effort for excellence, self-organization (i.e., emphasis for precision, routines and structure) and setting high personal performance standards. By contrast, perfectionistic concerns include aspects of perfectionism related to concerns about previous mistakes, fear of negative social evaluation, feelings of mismatch between one's expectations and performance, and negative reactions to imperfection (Stoeber & Gaudreau, 2017). Summarized by Olsson et al. (2020), perfectionistic strivings are linked to both negative and maladaptive (e.g., depression symptoms, fear of failure) and positive and adaptive (e.g., enjoyment, commitment, performance) outcomes, whereas perfectionistic concerns are exclusively linked to negative results (e.g., burnout, anxiety, amotivation).

The sporting context and soccer academies provokes what is referred to as the perfectionism paradox, meaning that although high performance sport demands a perfectionistic approach, athletes who are overly concerned about achieving such a level of perfection can be prone to lack of motivation, ill-being and loss of performance (Flett & Hewitt, 2014). In a similar manner, Turner et al. (2022) pointed out, 'the demand for perfection and constantly aligning self-worth with the final outcome can result in emotional consequences among athletes that can then interfere with their performances' (pp.7).

The review developed by Hill et al. (2018) on perfectionism in sport underlines the importance of this trait for athletes, highlighting the debilitating effect of the perfectionistic concerns on performance, and the need to monitor these in order to protect the athletes' wellbeing. The study by Watson et al. (2021) also remarks that perfectionistic concerns contribute to more negative attitudes dealing with mental health difficulties and asking for psychological support when necessary. On the other hand, focusing on perfectionistic strivings, the review by Hill et al. (2018) also shows that these could have positive effects on performance (e.g., highly energizing), but also predispose to motivational and psychological vulnerability, debating then that they are only associated with an adaptive motivation, part of a healthy effort for excellence. Previous results of Hill et al. (2014) point out that team contexts where high perfectionist standards (i.e., perfectionistic strivings) are imposed on members, could lead to a higher level of performance. Nevertheless, in a more recent research, same authors suggest that team sports could reduce the feeling of personal control, increase the feeling of social scrutiny and the probability of interpersonal conflict, a fact that may have important maladaptive effects in the context of perfectionism (Hill et al., 2018). Since success and failure in soccer exist as dichotomous extremes, there is a potential threat

to the development of extremely high standards and irrational beliefs (see Hall et al., 2012). Alternatively, developing and reinforcing more rational beliefs about the definition of success and failure will enable a preventive approach aimed at safeguarding athletes' mental health and the development of their athletic careers (Jordana et al., 2020; Turner, 2016b). For that reason, considering the JST as successful only when a player becomes professional, might pose a risk for talented youth, who are unlikely to ever reach that stage.

Although adult male elite soccer players are the most studied population in terms of REBT interventions in the sports context (see Jordana et al., 2020), studies tend to include small samples ($10 \leq n \geq 17$) and focus on investigating the effect of beliefs on specific variables such as anxiety, performance and physiological aspects. To complement the existing REBT literature in the sport context, the present study will include a broader sample and focus, which will support the generalization of findings. Position stands on the topics of athletes' mental health, performance and development (e.g., Henriksen et al., 2020; Schinke et al., 2017) suggest that sport-related demands and the pressure exerted at elite levels are potential risk factors for athletes' mental health, often causing a conflict between "what the athlete is" and "what the athlete wants to or should be" (Stambulova, 2003). Ignoring or overlooking mental health is the first step towards a dysfunctional environment (Feddersen et al., 2021; Henriksen et al., 2020). Therefore, it is necessary to explore the psychological challenges associated with the JST in soccer and to encourage reflection on the context of professional academies and their social responsibility for the healthy development of young talented athletes. Thus, the objective of this study is twofold: (a) to identify different career expectancies of male soccer academy players, and (b) to describe irrational beliefs, perfectionism and mental health levels associated with different career expectancies, identifying risk factors in the JST. The hypothesis is that those who believe they will become professional footballers will have greater satisfaction with their athletic performance, higher standards and will be more perfectionists.

Method

Participants

A total of 515 male soccer players between 14 and 19 years old ($M = 16.7$; $SD = 1.6$) participated in this study. All of them played in professional youth academies of Spanish teams during the 2020–2021 season. Some participants had been (pre) selected for youth national (6.3%) and regional (23.4%) teams at the time of data collection. In line with data about successful transitions (e.g., Dugdale et al., 2021), the majority of players had not been selected outside of the academy (70.3%). In terms of satisfaction with their athletic performance, 28.3% of the sample reported to be very satisfied, 56.7% moderately satisfied, 10.9% satisfied, and 4.1% was somewhat or not satisfied. Regarding academic performance, 8.7% of the male soccer players reported A results, 36.3% of the sample obtained B results, 47% C + and 8% reported C- results.

Instruments

Preparation Phase

This study is framed within the Healthy Dual Careers (HeDuCa: RTI2018-095468-B-100) project, which has the objective of promoting healthy dual careers through the longitudinal evaluation of psychological variables (e.g., dual career competencies, perceived support, emotion regulation, perfectionism, beliefs, mental health) that potentially influence talented athletes throughout the different developmental stages. Considering the number of studied variables, this project's methodological purpose is to develop shorter versions of already existent questionnaires to guarantee better quality of data by reducing workload, tiredness and boredom of the respondents. Such a shortening process promotes more efficient evaluations by reducing response time and resources invested, while preserving the core constructs, minimizing loss of psychometric properties and increasing the quality of data collected (Alcaraz et al., 2020; Horvath & Röthlin, 2018). Following the steps suggested in Alcaraz et al. (2013), the irrational Performance Beliefs Inventory (iPBI-2; Turner & Allen, 2018) was reduced from five to four items per four dimensions. In the Sport-Multidimensional Perfectionism Scale-2 (Sport-MPS-2; Gotwals & Dunn, 2009) we shortened from 42 to 20 items, four per five dimensions and we eliminated the "doubts about actions" dimension due to the lack of adaptability to the overall objective of the study (i.e., the athletic career expectancies). Shortening was not necessary for the Spanish version of the General Health Questionnaire-12 (GHQ-12; Goldberg et al., 1997; Sánchez-López & Dresch, 2008), as it already contains four items per three dimensions. As a result, the final survey consisted of 12 dimensions of four items each that evaluated the three constructs of the study (i.e., beliefs, perfectionism, mental health). To collect data from all participants, the three instruments were translated into Catalan and Spanish by native speakers. Afterwards, those versions were translated back into English to ensure the meaning was not lost during the process. We reworded and adapted the stems for the purpose of this study (in my athletic career…) and Likert scales were all adjusted to 7 points (1 = *totally disagree; 7* = *totally agree)*.

Sociodemographic Data and Future Career Expectancies

In order to assess the relevant information for this study, an ad-hoc questionnaire was drawn up. We asked about key demographics (e.g., age, sports level, academic course), satisfaction with sports performance (personal perception from very satisfied to not satisfied), academic performance (average grades from A to C-), and—based on the Athletic Trajectory Model (Pallarès et al., 2011; Torregrossa et al., 2021)—about their current dedication to soccer and studies (exclusively soccer, prioritizing soccer, similar commitment, not prioritizing soccer) and their future expectations (in the next 5 years).

Irrational Beliefs

The iPBI-2 was used to measure participants' irrational beliefs because its evidence of construct and validity criterion in an athletic sample and the recommendation to adopt shorter versions for use in sports environments (Turner & Allen, 2018), as well as its previous use in the sports context (e.g., Wood et al., 2020). The iPBI-2 provides a specific measure of irrational beliefs in performance settings, Turner and Allen (2018) encourage researchers to test it in different achievements populations. This questionnaire has 16 items measuring four irrational beliefs, namely demandingness (4 items; e.g., "I have to be viewed favorably by people that matter to me"), low frustration tolerance (4 items; e.g., "I can't bear not getting better at what I do"), awfulizing (4 items; e.g., "It is appalling if others do not give me chances"), and depreciation (4 items; e.g., "If others think I am no good at what I do, it shows I am worthless"). This instrument showed adequate internal consistency values for depreciation ($\alpha = 0.87$), awfulizing ($\alpha = 0.71$) and low frustration tolerance ($\alpha = 0.65$), but values below cut-off point of 0.65 for demandingness ($\alpha = 0.57$). Confirmatory factor analysis showed the following model fit indices: CFI = 0.871, TLI = 0.842, and RMSEA = 0.103.

Perfectionism

The Sport-MPS-2 was used to assess respondents' perfectionism towards soccer. This questionnaire includes 20 items grouped in five dimensions: personal standards (4 items; e.g., "I set more demanding goals than most athletes in my sport"), concern over mistakes (4 items; e.g., "The fewer mistakes I make in sport, the more people will accept me"), perceived parental pressure (4 items; e.g., "My family expects excellence from me in my sports career"), perceived coach pressure (4 items; e.g., "I feel like I will never meet my coach's expectations"), and self-organization (4 items; e.g., "I have a routine that I follow to improve performance -nutrition, rest, warming up…-"). This instrument showed general adequate internal consistency values for perceived parental pressure ($\alpha = 0.74$), concern over mistakes ($\alpha = 0.72$), organization ($\alpha = 0.70$) and personal standards ($\alpha = 0.67$), but not for perceived coach pressure ($\alpha = 0.52$). For the measurement model, we tested a flexible solution using ESEM to allow cross-loading between factors that showed adequate model fit indices (CFI = 0.965, TLI = 0.934, and RMSEA = 0.057) and interpretable results.

Mental Health

The GHQ-12 was used to screen symptoms indicative of poor mental health. In line with previous research (e.g., Pons et al., 2020), 12 items were represented in the following three dimensions: social functioning (4 items; e.g., "I have felt capable of making decisions"), anxiety and depression (4 items; e.g., "My worries have made me lose sleep"), and loss of confidence and self-esteem (4 items; e.g., "I have thought that I'm a person who is worthless"). This instrument showed adequate internal consistency values for its different subscales (social functioning = 0.76, anxiety and depression = 0.78, and loss of confidence = 0.76). Confirmatory

factor analysis also showed acceptable model fit, with CFI = 0.941, TLI = 0.924, and RMSEA = 0.111.

Procedure

Once approval from the ethical committee was obtained (reference 4996), we developed an online questionnaire in LimeSurvey. Through purposeful sampling, we asked the cooperation of 10 soccer academies from the Spanish professional leagues. We contacted coaches by phone or email to organize the distribution of informed consents and to plan the data collection. Questionnaires were administered at the clubs' infrastructures in mid-season and scheduled 30–40 min before the start of a training session. All participants were informed about the objectives, confidentiality and the voluntary nature of the study. We designed a data collection protocol that ensured the presence of at least two members of the research team to resolve athlete questions. Each respondent could answer the questionnaires using their mobile phone. Data were collected without incidents and athletes could follow their scheduled training session after completing the questionnaire.

Data Analysis

First, an exploratory analysis of participants' response patterns was conducted, removing six cases with a response time of less than 5 or greater than 45 min. In addition, two cases with inconsistent response patterns were detected and eliminated. The exploration of the data showed some items presenting ceiling and floor effects. We then calculated descriptive statistics for the entire dataset, including means, standard deviations and bivariate correlations using Pearson's correlation coefficient (statistical significance at $p < 0.05$). In terms of magnitude of effect sizes, the Cohen (1988) guidelines were followed with correlation coefficients of 0.10 considered small, 0.30 medium, and 0.50 large effects. This study adds to the growing trend of studies on the importance of publishing both statistically significant and non-significant results (e.g., Lakens & Etz, 2017; Nosek et al., 2015). By publishing research with mixed findings (i.e., significant and non-significant) we aim to promote transparency and a more accurate approach to evaluating evidence (Nosek et al., 2015). Developing more realistic expectations regarding the probability of considering mixed findings in the same data set could prompt researchers to communicate all study results, which would be an important step in reducing publication bias in the scientific literature (Lakens & Etz, 2017). We assessed reliability using Cronbach's Alpha coefficient. Last, we performed ANOVA to examine differences between participants' career expectancies using the non-parametric Hochberg CT2 test for comparisons between groups. Following Field (2005), this test is needed to correct the p-value when performing a multi-group comparison ($p = 0.0125$). All analyses were conducted using the 27.0 version of the IBB SPPS statistical package, using listwise deletion method to deal with missing responses.

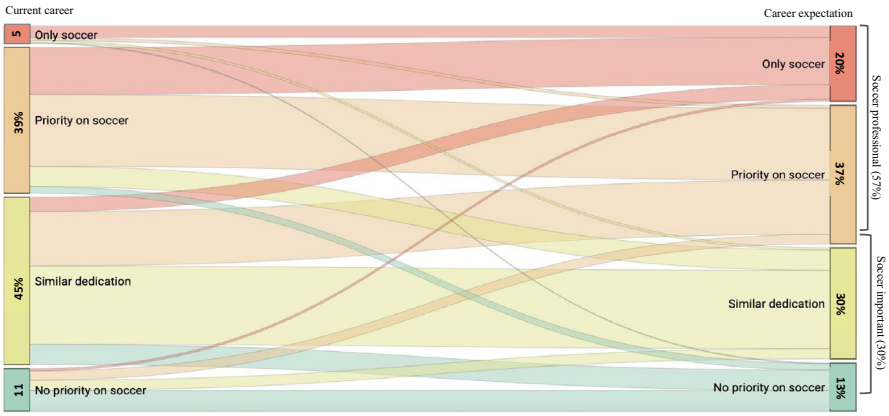

Fig. 1 Sankey diagram showing the flow from current career involvement in soccer to future career expectancies

Results

Current Career and Future Career Expectancies

The Sankey diagram (see Fig. 1) describes in detail the career trajectory expectancies of players: 'Exclusively Soccer' (ES), 'Prioritizing Soccer' (PS), 'Similar Commitment' (SC), and 'Not Prioritizing Soccer' (NPS). Figure 1 shows the flows between their prioritization dedicated to soccer and studies/work at the moment of administration, and the prioritization dedication they expect will have in the future (a period of 5 years). At the time of data collection, 24 soccer players (5%) were devoted ES, 201 (39%) PS, 231 (45%) SC, and 59 players (11%) NPS. In 5 years, 104 soccer players (20%) see themselves ES, 191 (37%) consider it a PS, 153 (30%) dedicate a SC, and 67 (13%) see themselves NPS.

To analyze the future view on players' career expectancies, the Sankey diagram (Fig. 1) allowed us to identify two general groups based on players' predicted changes in commitment to soccer between their current and future career: the 'soccer professional' group (ES and PS) and the 'soccer important' group (SC and NPS). For the 'soccer professional' group, we observed a 13% increase in relation to the current career commitment. This group included players coming from different current commitments: ES, PS, SC and NPS. In the 'soccer important' group, we found a 15% decrease for the SC group, the majority flowing to the PS group. Finally, we observe a 2% increase in NPS, this group also included players from different current commitments, especially from the PS and SC groups.

While the majority of players see themselves in the PS or SC group in the future, both groups show a decline compared to players' current perceptions of commitment. Players coming from these two groups intend to move towards the four different future commitment groups. In particular, we highlight the flow from the current PS group towards the future ES or SC groups, and the flow from the current SC group towards future PS or NPS groups. It should be noted

that there are also flows from the ES to NPS group and vice versa, but these flows are notably smaller.

Sample Characteristics and Descriptive Statistics

With response scales ranging from 1 (*totally disagree*) to 7 (*totally agree*), Table 1 shows that soccer players in this study present high levels of satisfaction with sports performance ($M=5.6$), demandingness ($M=5.5$), low frustration tolerance ($M=5.2$), self-organization ($M=5.2$) and social functioning ($M=5.5$). With scores close to the mid-point of the scale, we highlight the scores for awfulizing ($M=4.1$), personal standards ($M=4.7$), concern over mistakes ($M=3.1$), perceived parental pressure ($M=3.2$), perceived coach pressure ($M=3.2$) and anxiety and depression symptoms ($M=3.0$). Our soccer players present low scores on depreciation ($M=2.6$) and loss of confidence and self-esteem ($M=2.4$). The level of academic performance of this population has an average score of 2.5.

Table 1 also displays the correlations between satisfaction with sports performance, academic performance, and the 12 dimensions for beliefs, perfectionism, and mental health. Regarding the variable satisfaction with sports performance, we observed two significant correlations with irrational beliefs, the positive one with demandingness ($r=0.10$) and the negative one with depreciation ($r=-0.10$). Focusing on perfectionism, satisfaction with sports performance show a positive correlation with perceived parental pressure ($r=0.09$) and self-organization ($r=0.12$). The most notable correlations of perceived sports performance are found with mental health factors. We observe a positive correlation with social functioning ($r=0.38$) and a negative correlation with anxiety and depression ($r=-0.26$) and loss of confidence and self-esteem ($r=0.25$). It should be noted that academic performance did not show significant correlations with any of the target variables.

Regarding the relationship between beliefs and perfectionism, low frustration tolerance correlated positively with personal standards ($r=0.38$), awfulizing with concern over mistakes ($r=0.42$), and depreciation with perceived coach pressure ($r=0.36$) and especially with concern over mistakes ($r=0.61$). Regarding beliefs and mental health, we found a positive relation between depreciation and loss of confidence and self-esteem ($r=0.33$). Finally, we observed relationships between perfectionism and mental health. Concern over mistakes related positively with anxiety and depression ($r=0.38$) and loss of confidence and self-esteem ($r=0.36$). Furthermore, data shown a positive relationship between self-organization and social functioning ($r=0.37$). The only negative correlation observed was between the belief of depreciation and social functioning ($r=-0.18$), but it should be noted that this correlation is weak.

Table 1 Descriptive statistics, Cronbach's Alpha coefficient, and correlations for satisfaction sports performance, academic performance, irrational beliefs, perfectionism and mental health

		M (*SD*)		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Irrational beliefs	1. Satisfaction sports performance	5.6 (1.2)	1–7														
	2. Academic performance	2.5 (0.8)	1–4	− .04													
	3. Demandingness	5.5 (0.9)	1–7	.10*	.06	*.57*											
	4. Low frustration tolerance	5.2 (1.1)	1–7	.05	− .01	.41**	*.65*										
	5. Awfulizing	4.1 (1.2)	1–7	.03	.04	.45**	.36**	*.71*									
	6. Depreciation	2.6 (1.3)	1–7	− .10*	.01	.08	.17**	.46**	*.81*								
Perfectionism	7. Personal standards	4.7 (1.2)	1–7	.08	.03	.19**	.38**	.19**	.21**	*.67*							
	8. Concern over mistakes	3.1 (1.3)	1–7	− .04	.02	.18**	.25**	.42**	.61**	.38**	*.72*						
	9. Perceived parental pressure	3.2 (1.4)	1–7	.09*	− .07	.13**	.11*	.19**	.27**	.35**	.44**	*.74*					
	10. Perceived coach pressure	3.2 (1.1)	1–7	− .05	.08	.12**	.08	.27**	.36**	.27**	.46**	.53**	*.52*				
	11. Self-organization	5.2 (1.1)	1–7	.12*	.07	.13**	.19**	.04	− .06	.44**	.08	.14*	.10*	*.70*			
Mental health	12. Social functioning	5.5 (1.0)	1–7	.38**	− .01	.12**	.19**	.00	− .18**	.28**	− .12*	.02	− .09*	.37**	*.76*		
	13. Anxiety and depression	3.0 (1.4)	1–7	− .26**	− .02	.05	.10*	.14*	.24**	.12*	.38**	.20**	.29**	.01	− .36**	*.78*	
	14. Loss of confidence and self-esteem	2.4 (1.5)	1–7	− .25**	− .04	.01	.02	.16**	.33**	.00	.36**	.20**	.30**	− .07	− .41**	.69**	*.76*

The values in italics are Cronbach's alpha coefficients

*$p < .05$, **$p < .001$

Differences in Terms of Future Career Expectancies

Table 2 compares the satisfaction with sports performance, the academic performance, and the 12 dimensions of our three study constructs (i.e., beliefs, perfectionism, mental health) between the four types of careers players expect to develop in the future: ES, PS, SC and NPS.

Regarding satisfaction with sports performance, we identified that there are significant differences between ES and NPS groups (ES = 6.0; NPS = 5.3). In relation to academic performance, we observed significant differences between ES compared with PS, SC and NPS groups (ES = 2.1; PS = 2.4; SC = 2.6; NPS = 2.8), as well as between PS with respect to SC and NPS groups.

For beliefs, no significant differences were identified between groups based on their future career expectancies. The four groups all presented high scores for demandingness (ES = 5.4; PS = 5.5; SC = 5.5; NPS = 5.4) and low frustration tolerance (ES = 5.3; PS = 5.2; SC = 5.2; NPS = 5.1), moderate scores for awfulizing (ES = 4.0; PS = 4.1; SC = 4.3; NPS = 4.3), and low scores for depreciation (ES = 2.7; PS = 2.4; SC = 2.7; NPS = 5.1).

With regard to perfectionism, the NPS group reported significantly lower scores for personal standards compared to the other future career groups. Significant differences in perceived parental pressure were also observed between ES players ($M = 3.6$) compared to NPS players ($M = 2.8$). Finally, NPS players ($M = 4.4$) reported lower scores for self-organization compared to the other groups (ES = 5.4; PS = 5.3; SC = 5.1). Players expecting an ES dedication reported the highest scores across all five dimensions of perfectionism, while players who do not view soccer as a future priority (NPS) reported the lowest scores.

For mental health, the only significant differences ($p < 0.0125$) were observed between the PS and the NPS groups, namely for loss of confidence and self-esteem (PS = 2.1; NPS = 2.9). Overall, the four future career groups reported high scores for social functioning (ES = 5.6; PS = 5.6; SC = 5.5; NPS = 5.2) and low scores for loss of confidence and self-esteem (ES = 2.4; PS = 2.1; SC = 2.4; NPS = 2.9). Also, for anxiety and depression symptoms, low scores were reported for all groups (ES = 3.0; PS = 3.0; SC = 3.0) except for the NPS group, reporting moderate scores ($M = 3.3$).

Discussion

The 20% of the young soccer players who participated in this study indicated that they had an expectation of becoming professionals with an exclusive dedication to soccer (ES), and up to 57% consider that soccer will be a priority in their lives (ES and PS). As the scientific literature suggests that only 10% will become professional players (Dugdale et al., 2021), this is a worrying fact. According to Wood (2017), being unprepared to face this harsh reality can provoke the development of irrational beliefs (e.g., "I must make it, otherwise I would be terrible and become a complete failure"; “I can’t bear not succeeding in things that are important to me”) and become a risk factor for career development and mental health. In other words, considering a JST successful only when athletes reach professional levels in their sport,

Table 2 Mean comparison of satisfaction sports performance, academic performance, irrational beliefs, perfectionism and mental health between the four types of future career expectancies

	Study constructs	N = 515 male soccer academy players				*F*	*p*
		Exclusively soccer $n = 104$	Prioritizing soccer $n = 191$	Similar commitment $n = 153$	Not prioritizing soccer $n = 67$		
		M (*SD*)	*M* (*SD*)	*M* (*SD*)	*M* (*SD*)		
Irrational beliefs	1. Satisfaction sports performance	6.0 (1.1)^{NPS}	5.7 (1.2)	5.6 (1.2)	5.3 (1.2)^{ES}	4.882	**.002**
	2. Academic performance	2.1 (0.7)$^{PS, SC, NPS}$	2.4 (0.7)$^{ES, SC, NPS}$	2.6 (0.8)$^{ES, PS}$	2.8 (0.7)$^{ES, PS}$	15.186	**<.001**
	3. Demandingness	5.4 (1.0)	5.5 (0.9)	5.5 (0.9)	5.4 (0.9)	0.315	.815
	4. Low frustration tolerance	5.3 (1.2)	5.2 (1.1)	5.2 (1.0)	5.1 (1.1)	0.222	.881
	5. Awfulizing	4.0 (1.3)	4.1 (1.1)	4.3 (1.2)	4.3 (0.9)	1.927	.124
	6. Depreciation	2.7 (1.4)	2.4 (1.2)	2.7 (1.3)	2.8 (1.2)	2.173	.090
Perfectionism	7. Personal standards	5.1 (1.2)^{NPS}	4.8 (1.1)^{NPS}	4.7 (1.1)^{NPS}	3.9 (1.2)$^{ES, PS, SC}$	15.405	**<.001**
	8. Concern over mistakes	3.3 (1.4)	3.0 (1.2)	3.2 (1.4)	2.9 (1.3)	1.679	.171
	9. Perceived parental pressure	3.6 (1.3)^{NPS}	3.3 (1.3)	3.1 (1.4)	2.8 (1.4)^{OS}	4.965	**.002**
	10. Perceived coach pressure	3.3 (1.1)	3.2 (1.0)	3.3 (1.1)	3.2 (1.2)	0.676	.567
	11. Self-organization	5.4 (1.1)^{NPS}	5.3 (1.0)^{NPS}	5.1 (1.1)^{NPS}	4.4 (1.2)$^{ES, PS, SC}$	13.152	**<.001**
Mental health	12. Social functioning	5.6 (1.1)	5.6 (0.9)	5.5 (1.0)	5.2 (1.1)	3.058	.028
	13. Anxiety and depression	3.0 (1.3)	3.0 (1.4)	3.0 (1.5)	3.3 (1.4)	0.846	.469
	14. Loss of confidence and self-esteem	2.4 (1.6)	2.1 (1.4)^{NPS}	2.4 (1.6)	2.9 (1.6)^{PS}	4.054	**.007**

Values in parentheses are SDs. Values in bold indicate significant differences. The superscripts indicate significant between-group differences ($p < .0125$) found using post-hoc CT2 Hochberg test

ES Exclusively soccer, *PS* Prioritizing soccer, *SC* Similar commitment, *NPS* Not prioritizing soccer

puts them in a vulnerable position. In line with Franck and Stambulova (2020), it is important to evaluate the JST beyond the sporting outcome in order to promote meaningful and positive developmental experiences, and to view this process more than a projection of the future.

The findings in this study show that talented young soccer academy players report, in general, high levels of satisfaction with sports performance. This is consistent with the idea expressed by Chamorro et al. (2016) about that this group represents only a very specific part of the collective and refers precisely to talented athletes who have been selected by top-level academies, thus developing their early career in exclusive environments. However, as they begin to become aware that they might not become professional soccer players, their satisfaction with sports performance seems to be significantly lower. In terms of academic performance, the opposite occurs. Those who see themselves dedicating exclusively to soccer are the ones who show lower academic performance, while as those who project that they might not achieve professional soccer, present higher academic performance. These results reinforce the idea suggesting the need to develop dual careers allowing the parallel development of an academic career to the athletic one. These dual careers, as previously suggested by different authors (e.g., Torregrossa et al., 2021; Torregrossa et al., 2020), not only allows developing a plan B out of sport, but also favors the holistic development of athletes beyond their sporting achievements.

Results show that the talented young people in this study represent a fairly homogeneous group characterized by high scores on satisfaction with sports performance but also on demandingness and low frustration tolerance irrational beliefs, with lower reported levels of depreciation. This positive relation between demandingness and low frustration tolerance in challenging situations has been previously noted in literature (e.g., Mansell, 2022). Our results suggest that these beliefs might be considered adaptive in this challenging and performance-oriented context as they seem useful to achieving short-term results. In line with the results of Mansell (2022), demandingness and low frustration tolerance could be associated with a greater assessment of the challenge. Moreover, results indicate a positive relationship between the belief of depreciation and loss of confidence and self-esteem (an indicator of poor mental health), and a negative relationship of this belief with social functioning, which is an indicator of good mental health. While depreciation seems to be the most risk factor, demandingness and low frustration tolerance might eventually become a trigger for poor mental health (Turner, 2019; Vîslă et al., 2016). Therefore, it is important to understand how irrational beliefs develop and propagate so that strategies, communication systems and language could be developed that promote the most rational ones (Turner, 2016b).

In relation to perfectionism, the talented soccer players in this study showed high personal standards and an emphasis on precision, routines and order (self-organization). On the one hand, we identified that those high personal standards, concern over mistakes and perceived coach pressure are associated with low frustration tolerance, awfulizing and depreciation. On the other hand, our findings show a relationship between concern over mistakes and poor mental health indicators (anxiety and depression symptoms, loss of confidence and self-esteem), and between self-organizational preference and social functioning. According to Hill et al. (2020),

athletes with high levels of perfectionism, especially those with high levels of perfectionistic concerns, are even more prone to developing mental health problems. However, lower self-depreciation levels among athletes combined with high levels of perfectionism can be preventive against poor mental health, and act as a source for resilience when extremely high standards are not met (Flett et al., 2003). In relation to Kuettel and Larsen (2020), the pressure and high demands of elite sport have led athletes to be exposed to a unique variety of risk factors that may potentially increase their vulnerability to poor mental health (e.g., high levels of anxiety and depression symptoms).

REBT approach consider that goals play an important role in the sport context, so the interpretation of the results should be linked to understanding the goals of the participants of this study (Turner, 2019). Therefore, in addition to providing an overall snapshot of the talented young players' current career, it is important to interpret the results in terms of their career prospects (over a 5-year period). Results did not show any significant differences between groups for irrational beliefs in terms of career expectancies (i.e., ES, PS, SC, NPS). However, the results also show that in relation to irrational beliefs, soccer academy players score high on demandingness and low frustration tolerance, regardless of their career expectancies. Soccer players who enter academies are by definition considered talented and are more likely to become professionals than players in regular clubs, which explains why they report a positive self-evaluation in general. Moreover, they have developed irrational beliefs such as demandingness ("I want to succeed and, therefore, I must succeed"; Turner, 2016b) and low frustration tolerance ("It is unbearable to fail"; Turner, 2016b). These findings are consistent with Hall et al. (2012) and Ford et al. (2020), who suggested that developing in an ego and results-oriented environment where success and failure are viewed as dichotomous extremes, may pose a threat to develop irrational beliefs and extremely high standards. In this context, demandingness and low frustration tolerance seem to help athletes adapt better. However, it is important to consider the potential long-term consequences derived from these irrational beliefs. As already pointed out in Turner (2016b), although the evidence suggests that irrational beliefs harm mental health, it cannot be ruled out that they are a potential adaptive strategy for performance. Recently,) discussed that this potential is based on the motivational potency that irrational beliefs could inspire, which could be beneficial in the short-term, but could be dangerous for mental health in the long-term. In the same way, recent works highlight the importance of motivation in understanding REBT theory and practice, as athletes who report low self-determined participation motives (i.e., external and controlled reasons) and greater irrational beliefs, report worse motivation and mental health (Turner et al., 2022a, 2022b). This relationship between irrational beliefs with controlling motivation regulation is interesting to explore, as motives to commit or achieve are fostered by demands, and self-esteem is contingent on success (e.g., Chrysidis et al., 2020; David & Turner, 2020). Therefore, this work adds to the evidence that irrational beliefs and extremely high standards can be adaptive or maladaptive depending on the context and depending on the short or long-term focus.

The soccer players who do not see themselves prioritizing soccer in 5 years (NPS) are the group with the lowest scores for satisfaction with sports performance and for

adaptive indicators of perfectionism (perfectionistic strivings) and at the same time are the group with the worst mental health indicators (loss of confidence and self-esteem). Smith et al. (2016) suggest that athletes with high levels of perfectionism who fail to meet their expectations exhibit indicators of poor mental health. On the other hand, soccer players who expect to devote time to soccer in the future (ES, PS, SC) show the highest levels of perfectionistic strivings. However, a closer look at players who expect to follow a linear career path (ES) shows that they exhibit the highest indicators of maladaptive perfectionism (perfectionistic concerns), especially in terms of perceived parental pressure. Consistent with existing scientific literature (Hill et al., 2020; Ramis et al., 2017), perfectionistic concerns are a risk factor for young people's mental health and sports experience, possibly caused by the children's perception of their parents' perfectionism (Olsson et al., 2020) or the pressure of families on children who follow a linear career trajectory to become professionals (Grossmann & Lames, 2015). These findings reinforce the idea of the perfectionism paradox (Flett & Hewitt, 2014), as achieving perfection in sport is unrealistic and likely dysfunctional and irrational, yet the pursuit of perfection is part of everyday life in sports contexts such as soccer academies (Hill et al., 2020).

As in the case of irrational beliefs (i.e., rigid, extreme, illogical), perfectionism may seem adaptive to talented young people who perform at the highest levels of sport and see themselves as competent and who like challenging themselves. Even though, this situation may also jeopardize their goal achievement and mental health (Hill, 2013; Madigan et al., 2018), in the same way that irrational beliefs are also related to potentially dysfunctional, unhealthy and maladaptive consequences (Turner et al., 2022a, 2022b). The results of this study suggest that irrational beliefs and extremely high standards appear to have adaptive effects on TJS process, surely due to the increase in the demands and challenges of the process, both personally and in the environment. In professional soccer academies, players are often exposed to demanding environments focused on success (becoming a professional soccer player) rather than promoting the development of athletes (Ford et al., 2020), a situation often reinforced by coaches, families and even athletes themselves (Harwood et al., 2010). However, these rigid ideas about success and failure can perpetuate the prevalence of irrational beliefs, which are detrimental to the development and mental health of athletes (Turner & Barker, 2014; Wood et al., 2017).

The prospective view provided by this study shows that as male soccer players project that they will not become professional athletes, their mental health indicators worsen. Furthermore, this fact is worrisome, as there are talented athletes who have the expectancies that they will become in professional players, but they really will not, and it may be a risk for their future mental health. These results agree with those from Shermer (2011) who suggests that the beliefs system is developed by the interaction of different sources (e.g., coaches, competitions), and these interactions influences greatly on the perception of reality and are maintained and reinforced through cognitive biases that distort person's perception about the contexts in which they develop. The perception and rationalization that athletes create of this transitional processes could affect their coping and promote cognitive, emotional and behavioral dysfunctional, unhealthy, and maladaptive consequences. The change of beliefs during the junior to senior process would be potentially effective to

deactivate the common, extreme and irrational assumption that talented junior athletes will become professional athletes. As previously suggested by Maxwell-Keys et al. (2022), adversity, failure and rejection are ubiquitous in elite sport, accordingly, sport psychology professionals have the responsibility to provide resources that help athletes responding more adaptively to promote positive changes to achieve general psychological wellbeing.

Practical Implications

The findings of this study have implications for the application of REBT with talented youth, as well as for the environments associated with their sporting development (e.g., academies, families, media). According to the (G)ABCDE model that guides the application of REBT (see Turner et al., 2020), we should consider that goals (G) play an important role in the sport context, generate different situations (A), promote different beliefs (B), and consequently lead to different emotional, cognitive and behavioral outcomes (C). Irrational beliefs beget unhealthy negative emotions (e.g., anxiety, depression), and rational beliefs beget healthy negative emotions (e.g., worry, sadness), so the focal point of a REBT intervention is to help people to dispute (D) their irrational beliefs, and to adopt new effective rational beliefs (E), with the aim of reducing the healthy negative emotions and associated maladaptive behaviors (e.g., avoidance, flight) and increased healthy negative emotions and associated adaptive behaviors (e.g., approach, assertiveness).

The use of REBT within the sports context offers benefits for both mental health and sports performance (e.g., Turner, 2019), and its effective application has been widely supported in the scientific literature in recent years (see Jordana et al., 2020). From the current study, we propose that practitioners in the soccer environment (e.g., sports psychologists, managers, coaches) and researchers focus their work on: (a) educating, based on the (G)ABCDE model, (b) recognizing and disputing irrational beliefs, (c) developing more rational beliefs, (d) ensuring the rationalization of the newly developed beliefs, and (e) reinforcing and disseminating these new beliefs in soccer academies. On the one hand, a specific technique that could be used by practitioners during the implementation of REBT to bolster athletes' irrational beliefs rationalization is the Athlete Rational Resilience Credo (ARRC; Turner, 2016a). A Credo can be defined as 'a set of beliefs, which expresses a particular opinion and influences the way you live' (Dryden, 2007, p. 219). The ARRC promotes the athlete's beliefs' rationalization, which are important for resiliently responding to adverse events (Turner, 2016b). On the other hand, Torregrossa et al. (2021) pointed out that in order to promote youth development, it would be advisable to consider other success stories of athletes who have not reached the elite level and have chosen alternative professional careers, whether within or outside the sports context, and professional assistance programs may be potentially beneficial in encouraging it. Several studies have recently focused on recognizing and promoting athlete's mental health and development as a central component of a healthy and effective elite sport system (Henriksen et al., 2020). Based on this work, and in line with Pons et al. (2020), we encourage following this recommendation so that sports institutions guiding talented young people are seen not only as physical

and sporting spaces, but also as social and cultural environments with a civil responsibility in the evaluation and monitoring of athletes' development and mental health. According to the scientific literature based on the use of REBT in sport (e.g., Cunningham & Turner, 2016; Turner, 2019), belief rationalization sessions could promote a preventive approach to sport career development and, consequently, future mental health of all those young people who want to become professional soccer players.

Limitations and Future Research

Lacking a short and Spanish version of the iPBI-2 and MPS-2, we performed a preliminary reduction and adaptation process (see Alcaraz et al., 2013). These instruments show some inadequate psychometric properties, with low internal consistency coefficients for two dimensions (demandingness, perceived coach pressure). Therefore, these dimensions should be interpreted with caution. As Turner and Allen (2018) indicate, a shorter questionnaire is more economical and can benefit researchers and professionals in sports contexts in the evaluation of irrational beliefs in restricted time conditions, however, the results of our study show that to evaluate irrational beliefs with shorter versions might have a negative effect on the internal consistency and the factor structure of the scales. To ensure the correct use of these instruments, future research should develop new validation processes, in different languages, until satisfactory properties are achieved. In line with Turner and Allen (2018), we encourage future studies to continue testing brief, but no less valid, measures of irrational beliefs in performance contexts. More complex methodological analyses to assess the relations between variables, such as regression testing, would require better psychometric properties. On another note, this study focuses on a reality that pertains only to male soccer, ignoring populations that are already underrepresented in the scientific literature. According to Kuettel et al. (2021), female soccer players are more vulnerable than male players to experiencing poor mental health, so future research should explore the JST process and the psychological challenge it poses to the reality of elite women's soccer. In the case of Spain, it was not until June 2021 that the Women's League achieved professional acknowledgement (Hernández, 2021), so even though it is the same sport, men's and women's soccer are two different realities to explore. Finally, future research should also focus on following the JST process of these talented young players to provide a retrospective view to complement the prospective view of this study. As the current study is part of a longitudinal project, this retrospective view is planned within research team's future objectives, which will include the exploration of mental health indicators of both those who will become professional soccer players and those who will not.

Conclusions

Although high expectancies are necessary to become a professional soccer player, the environments where athletes develop can generate an obsession for success and failure, rather than promoting athlete's holistic development (Shermer, 2011; Wood et al., 2017; Wylleman, 2019). The fact that many soccer academies are completely

focused on turning talented youngsters into professional soccer players overlooking that the majority won't reach that goal, leads to a minority of players experiencing success (only those who will become professionals) and fails to provide a big majority of players the resources needed to cope with failure. In general, the number of soccer academy players who aspire to become professionals by far exceeds the number of players who eventually will reach that stage. While irrational beliefs and perfectionism appear to have adaptive effects in this type of context, they also are related to potential maladaptive effects that jeopardize their mental health and career evaluation, especially for those who will not become professional soccer players. The soccer context must take on its role to protect talented young people from determining their personal worth based on sporting achievements. Because of the JST success rates in soccer and with the aim of developing better definitions of success and failure during this transition, the current study suggests that practitioners should base their work on the philosophy proposed by the REBT (David et al., 2010). The ARRC technique is proposed, since it reflects REBT philosophy for reacting and dealing with adversity in an assertively way, recognizing irrational beliefs and promoting the four core rational beliefs of REBT (Turner, 2016a). Accordingly, we recommend that future lines of work focus on challenging rigid, extreme and illogical beliefs regarding success in soccer in order to adopt new and more rational beliefs that promote healthier and more adaptive consequences, both in the short and long term. By questioning the idea of career success in soccer and reconceptualizing it in more functional and healthy terms, the mental health of young soccer academy players could be preserved and protected, especially in the vast majority who will not turn professional.

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Data availability The data that support the findings are available from the corresponding author upon request.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Consent to participate Informed consent was obtained from all individual participants included in the study.

Ethics approval The ethics committee of Universitat Autònoma de Barcelona first approved this study (reference 4996).

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